

**Van Der Horst
Ground Water Plume
Terrell, Kaufman County, Texas**



EPA Region 6

EPA ID# TXD007357932

Site ID: XXXXXXXXX

Contact: Philip Allen, P.E. (214) 665-8516

State Congressional District: 5

Last Updated: March 2013

Background

The Van Der Horst Ground Water Plume Site (Site) is located at 410 and 419 East Grove Street in Terrell, Texas. The Site is in a mixed-use commercial/industrial and residential area. It is bounded by a railroad to the north and a new section of State Highway 34 is under construction to the east. An intermittent creek flows from west to east along the southern portion of the Site. The intermittent creek flows into Frazier Creek and continues eastward to Kings Creek, where it flows southward and eventually empties into Cedar Creek Reservoir.

The Van Der Horst USA Corporation operated a chromium (tri- and hexavalent) and iron electroplating facility for more than 55 years. The facility began operations in the 1950s and ceased operations in December 2006. The operation was permanently abandoned in April 2007. The finished products associated with plating operations were pipeline cylinders for the transportation of natural gas and cylinder bores for large diesel engines (e.g., railroad locomotive engines).

The operations occupied a four-acre plot, which was divided by East Grove Street. The main electroplating facility was located on the northern portion of the Site and the wastewater treatment facility was located on the southern portion. As part of the plating operations, the company generated spent kerosene, wastewater treatment sludge, and chromium-contaminated wastewater. Sources of contamination were present in four locations at the Site: the settling lagoons, underground sumps, vats, and drums. These sources contained hazardous substances (e.g., chromium waste) that have been released into ground water and surface water transport pathways.

In 2009, the US Environmental Protection Agency (EPA) conducted a Removal Action on the electroplating facility, which was located on the northern part of the Site. At the time, the building had significant structural damage and portions of the roof were sagging, allowing rainwater to leak into the facility. Rain contributed to the deterioration of the facility and exacerbated the corrosion of drums and vats. In addition, the electroplating facility had a basement sump that was lined with acid brick and contained more than 300,000 gallons of wastewater and sludge. The two lagoons that were located to the east of the wastewater treatment facility were excavated to approximately 2 feet below ground surface. However, contaminated sludge may exist below the excavation.

In 2009, the Texas Department of Transportation (TXDOT) conducted soil and ground water investigation activities to identify potential environmental impacts within the future right-of-way of State Highway 34. Soil borings and temporary monitoring wells installed in the vicinity of the Site indicated the presence of hexavalent chromium, trichloroethene (TCE), dichloroethene (DCE), and vinyl chloride (VC) in ground

water. TCE is commonly used in metal cleaning and degreasing operations, and may have been utilized at the electroplating facility.

Current Status

The EPA is conducting the Remedial Investigation and Feasibility Study (RI/FS) for the Site. The purpose of the RI/FS is to determine the nature and extent of contamination and to gather sufficient information about the Site to support an informed risk management decision for the most appropriate remedy.

Ground water, soil, soil gas, indoor air, sediment, and surface water samples have been collected during four major phases of the investigation. Eighteen monitoring wells have been installed in two separate events. An additional nine monitoring wells were installed in May 2012. Another mobilization will be necessary for the installation of five more wells to complete the delineation of the groundwater contaminant plume. These wells are expected to be installed during the Fall 2012. Following the next well installation event, additional ground water samples will be collected.

A pilot study will be completed in the Fall 2012. The goal of the pilot study is evaluate potential remedial alternatives for hexavalent chromium and chlorinated solvent (e.g., trichloroethene) ground water treatment. Several amendments (e.g., emulsified vegetable oil) are under consideration.

Benefits

The investigation and cleanup of the Site will ensure the protection of human health and the environment. Specific cleanup benefits will be identified during the RI/FS.

National Priorities Listing (NPL) History

Proposal Date: 23 September 2009

Final Listing Date: 4 March 2010

Setting: The Van Der Horst Site is in a mixed industrial/residential area on the southeast boundary of the city. The nearest residences are located less than a quarter mile southeast of the former facility. Surface water runoff flows approximately 300 feet east to Frazier Creek. Frazier Creek flows for approximately 2,000 feet before joining Kings Creek, which then eventually empties into Cedar Creek Reservoir.

Wastes and Volumes

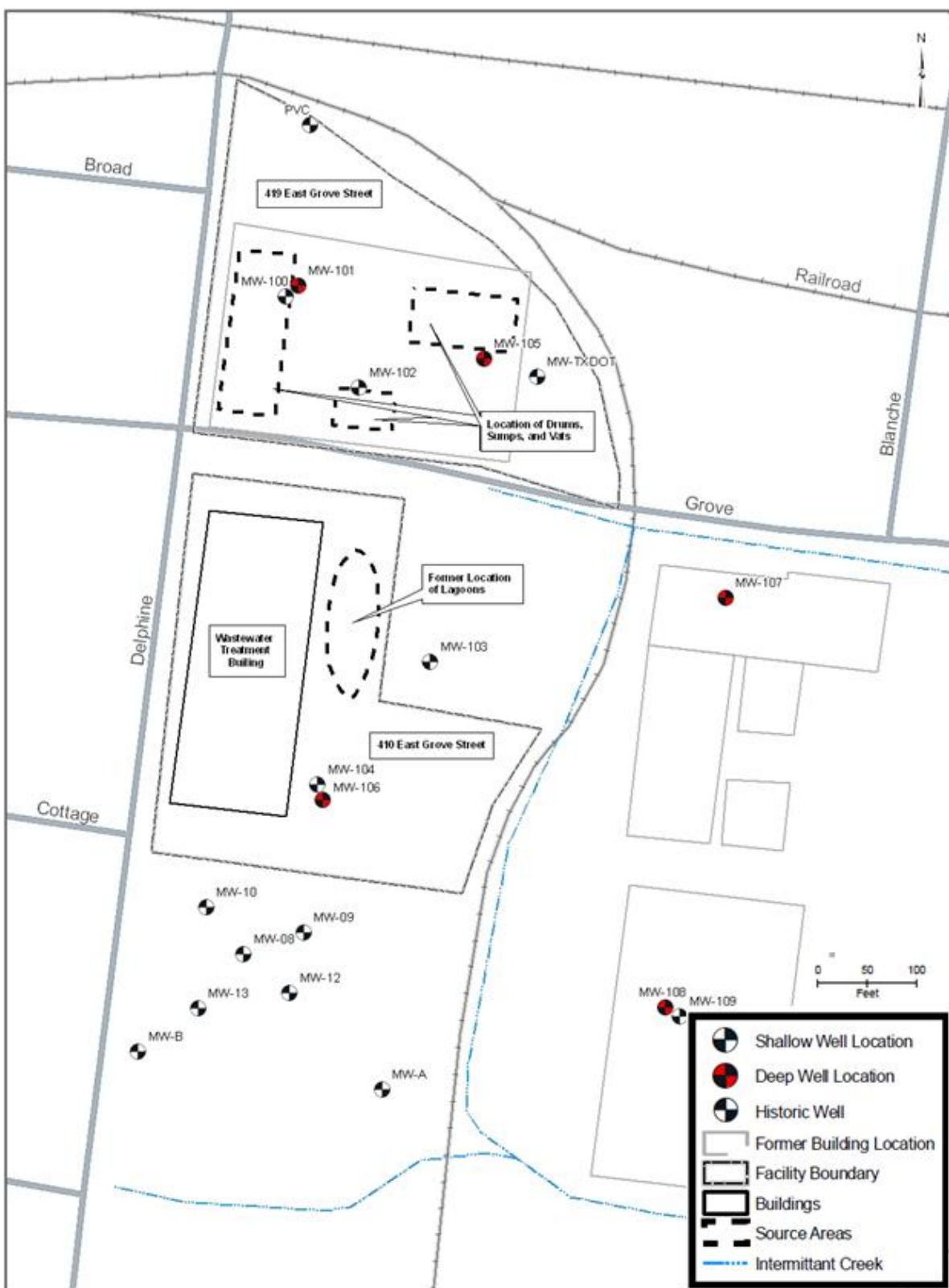
Principal Pollutants: Sampling investigations confirmed the presence of the following chemicals in ground water: chromium (tri- and hexavalent), naphthalene, TCE, DCE, and VC. Hexavalent and trivalent chromium have also been identified in sediment and surface water.

Volume: The volume of pollutants will be determined during the RI/FS.

Health Considerations

A risk assessment will be performed to determine whether Site contaminants pose a current or future risk to human health and the environment in the absence of any remedial action. Included in this assessment will be an identification of contaminants of concern, analysis of critical exposure pathways, characterization of potential receptors, an assessment of the toxicity of the contaminants, and a characterization of risk. This assessment will provide a basis for determining whether remedial action is necessary at the Site, determine which exposure pathways necessitate remediation, and provide justification for performance of remedial actions. Included in this assessment will be characterization of risks to both human and ecological receptors.

Site Map



Record of Decision

The final remedy (cleanup alternative) for a site is published in a Record of Decision (ROD). The ROD is the official documentation of how the EPA considered the remedial alternatives and why the EPA selected the final remedy.

A ROD Has Not Been Signed For The Site

Community Involvement

Community Relations Plan: Not yet developed
Site Repository: Not yet developed

Site Contacts

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